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| **Tropical Rainforest** | emperature Graph | recipitation Graph | * Constant high temperatures * High rainfall (over 2,500mm/yr) * Always at the equator; high insolation (lots of sun) * High photosynthesis * High NPP (~40% for terrestrial ecosystems) * High biodiversity: species, genetic, & habitat * High rates of decay * Rain washes away nutrients **(Limiting Factor)** * Thin soils, once gone, hard to reestablish forests * Made of various stories of plants (light can be limited below the canopy) |
| **Desert** | emperature Graph | recipitation Graph | * Found at latitudes of 30 N and S (above & below equator) * Dry air, high insolation (lots of sun) * Hot versions of this biome: high temperatures, low precipitation, uneven water, cold at night **(Temperature & Water are Limiting)** * Cold versions: low temperatures, low precipitation * Low photosynthesis, Low NPP * Little vegetation, soils with lots of nutrients * Low decomposition rates * Organisms are highly adapted |
| **Tundra** | emperature Graph | recipitation Graph | * At high latitudes, adjacent to ice margins * Short day length (low insolation) **(Light is Limiting)** * Precipitation is low, water is stored in ice **(Water is Limiting)** * Low rates of photosynthesis, Little NPP * Low temperatures **(Temperatures are Limiting)** * Low respiration & decomposition * Soil is frozen, little soil anyway * Plants are all short |
| **Temperate Deciduous Forest** | emperature Graph | recipitation Graph | * Between 40-60 N of the equator * Seasonal (cold winters, warm summers) * Evergreen and deciduous trees * Rainfall between 500-1500mm/yr * Lower Productivity, lower photosynthesis than rainforest * Still have second highest NPP * Less biodiversity than rainforests * Thick soils, detritus layers, lots of nutrients * Sunlight can easily hit below the canopy level |